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Title: Hyperovals on Hermitian Generalized Quadrangles

Summary:

The first part of the talk is about the intersection between an elliptic quadric $Q^-(3,q^2)$ and an Hermitian surface $H(3,q^2)$ in $PG(3,q^2)$, q even, such that the tangent lines with respect to $Q^-(3,q^2)$ that are generators of $H(3,q^2)$, are extended lines of a symplectic space $W(3,q)$ lying in a subgeometry. In this setting we determine a new hyperoval on $H(3,q^2)$.